

METHOD AND SYSTEM USING RETURN LABELS WITH DYNAMICALLY  
GENERATED MULTIPLE DATAPOINT CODING

RELATED PATENT APPLICATION

This application claims the benefit of U.S.  
Provisional Application Serial No. 60/446,142 filed  
February 10, 2002 and entitled "Retail Package Returns  
5 Service System Using Postage Due Labels".

TECHNICAL FIELD OF THE INVENTION

This invention relates to merchandise return methods  
and systems, and more particularly to a method of  
10 managing returns of goods purchased from retailers and  
other merchants.

BACKGROUND OF THE INVENTION

The growing use of electronic commerce as a customer marketplace has led to a greater need for appropriate customer return methods. In the absence of conveniently  
5 located retail stores, the customer needs an acceptable method of returning goods. Various "reverse logistics" systems have been developed to meet this need. These systems are a subset of the growing industry of "supply chain management" systems, and are designed to help  
10 merchants manage customer returns.

For returns, as opposed to forward deliveries, the typical returns process requires the customer to take the package to the carrier and pay shipping costs. As an alternative to customer-paid shipping, some merchants  
15 have turned to a merchandise return service available from the United States Postal Service (USPS), which permits the customer use an addressed and prepaid merchandise return label. The customer may deposit the package at any post office or in a mailbox, and postage  
20 is paid by the merchant. The merchant decides the ultimate return shipping cost to the customer, such as by deducting that cost from the customer's credit.

Existing merchandise return service methods, such as that offered by the USPS, although convenient for the  
25 customer, can be costly and time consuming for the merchant.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 illustrates a merchandise return process using postage due return labels in accordance with the invention.

5       FIGURE 2 illustrates a return label in accordance with the invention.

FIGURE 3 illustrates an example of bar code fields for the bar code of FIGURE 2.

FIGURE 4 illustrates a method of generating a return  
10   label in accordance with the invention.

FIGURE 5 illustrates the use of the return label by the customer.

FIGURE 6 illustrates the use of the return label at the return center for issuing customer credit.

15       FIGURE 7 illustrates a process of dynamic routing, using data on the return label.

DETAILED DESCRIPTION OF THE INVENTION

This invention described herein is a merchandising method and system that permits a merchant to provide pre-authorized returns, for which the customer need not pay shipping charges. The merchant provides a special return label to the customer, which has machine readable data that enables shipping charges to be assessed at a point of delivery. Data on the return label may further ensure that the package is delivered to an initial point of return close to the customer, thereby providing "reverse zone skipping". The return label may further have data that permits the merchant to dynamically route returned packages and that permits both the merchant and the customer to be quickly notified of the status of the return.

The method is used by, or on behalf of, a "merchant", which is typically a retail merchant. However, the concepts discussed herein may be applied to any merchant, including service providers who sell goods incidentally to the providing of services. The "return" may be for purposes of receiving credit for an item recently purchased, but may also be subsequent to events such as warranty claims, recalls, or for repairs.

The method described herein may be used in connection with a "reverse logistics return service". This type of service is becoming increasingly popular, and permits merchants to "outsource" their returns process. For purposes of this description, these service providers are referred to as "returns providers". They typically provide returns services for a number of different merchants, with part of their services being

disposing of packages in accordance with the particular disposition rules of each merchant.

If the merchant uses such a returns provider, the returns label will further have data useful for  
5 identifying each merchant and may contain other data particular to that merchant. However, the methods described herein are also useful for returns systems that handle only returns for a single merchant, such as for a merchant having an in-house returns provider.

10 One example of a returns service that could incorporate use of the return label described herein is the SmartLabel™ service offered by Newgistics, Inc. This service makes use of a bar-coded shipping label, typically attached to an invoice received by the customer  
15 when the product is delivered to the customer. To return the product, the customer simply affixes the label to the return package, and drops the package anywhere into the U.S. Postal System (USPS), such as by dropping it into a mailbox. The label directs the package to a returns  
20 center maintained by the service provider. The returns provider assesses shipping charges, pays the carrier, and passes the shipping costs on to the merchant, who may then deduct those costs from the customer's credit for the returned item. The various services that the returns  
25 provider provides to the merchant include the return label, aggregation of packages to each merchant, transportation and processing services, payment of shipping charges, reporting, and notifications to the merchant and/or the customer.

30 For purposes of example herein, it is assumed that the carrier that ships the returned items is the United

States Postal Service. However, the same concepts could be applied to a returns process that uses other carriers or multiple carriers, so long as each carrier has the equivalent of postage due capability; that is, the  
5 ability to collect shipping charges after the package is delivered, that is, from the returns provider (the package recipient) rather than from the customer.

Overview of Returns with Postage Due Shipping

10 FIGURE 1 illustrates a returns process that uses postage due return labels in accordance with the invention. In the embodiment of FIGURE 1, returns are processed through a returns provider that handles returns for multiple merchants. However, as stated above, the  
15 method described herein may be easily adapted for a returns provider that handles only returns for a single merchant. In either case, the merchant is considered to "maintain" at least one returns center, whether by directly maintaining the returns center(s) or by  
20 associating with a third party that does so.

In Step 110, a merchant has delivered an item to a customer. In Step 111, the customer has decided to return the item, herein referred to as "the return item".

A returns label 20 has already been, or is to be,  
25 provided to the customer. In the example of FIGURE 1, the return label 20 is delivered as an enclosure with the customer's original order, such as by being part of the customer invoice or a separate insert.

In other embodiments, return label 20 could be  
30 downloaded from a data network and printed by the customer, or otherwise delivered to the customer by means

other than being included with the merchandise delivery. For example, the return label 20 could be separately mailed or send as by facsimile. As another example, the customer might access a website provided by the merchant,  
5 link to a returns page, and download the data for printing the return label.

Return label 20 is "pre-authorized" in the sense that the customer need not seek authorization from the merchant. The customer is apprised by the merchant that  
10 returns are pre-authorized, such as by information on the invoice or other shipping documents. The notification may be explicit on the return label or elsewhere or may be implicit. The customer is further apprised that the customer need not pay shipping charges, such as by a "no  
15 postage necessary" printing on the return label 20.

An example of a suitable return label 20 is described below in connection with FIGURES 2 and 3.

The customer affixes the returns label 20 to the packaging for the return item, and hands over the return  
20 item to a carrier, without paying any shipping charges to the carrier. The customer need not affix any indicia of postage or other shipping costs to the packaging. In the example of this description, the customer may simply deposit the package into the US postal system, by putting  
25 it into a mailbox (if postal compliant), dropping it off at a postal drop, or taking it to a post office. The return is local to the customer in the sense that the customer may select whatever drop-off point is most convenient.

30 As further explained below in connection with FIGURE 2, return label 20 is preprinted to indicate at least the

destination for the item and the package origin (the point where the customer places the package with a carrier). Typically, the destination and origin are identified by addresses, including postal codes. For  
5 purposes of this description, "postal codes" include the ZIP (zone improvement plan) codes of the USPS and similar codes used in other countries.

The returns label further indicates that delivery charges are to be paid by a recipient. It further  
10 identifies the transaction leading to the return. Typically, this is a purchase transaction and the identification is by invoice number or other indicia of the package or its contents. In other embodiments, the transaction could be a warranty claim or repair request.

15 In Step 112, the carrier delivers the return item to the returns provider. As stated above, in the embodiment of FIGURE 1, the initial point of return for the package is a specialized returns center, which may receive returns for more than one merchant. The returns center  
20 may be regional for a large area such as the United States. In other words, a large geographic area may have a number of returns centers.

For a returns provider having regional returns centers, the return label 20 may ensure "reverse zone  
25 skipping". At the time the data for each returns label 20 is composed, the destination address on the label 20 is determined.

The destination address is typically that of a carrier station (such as a postal center) nearest the  
30 customer. This may mean that return packages are carried from the customer drop-off location to a destination



associated with the carrier for pickup by the returns provider. For example, where the carrier is the USPS, the package could be delivered to one of 21 regional bulk mail centers (BMCs). The package is delivered to the BMC  
5 closest to the location of the returns provider. The returns provider may then pick up accumulated packages addressed to it. Equivalently, the carrier then may deliver the package directly to the returns center. In either case, the destination address is considered to be  
10 "to" a returns center closest to the customer.

In Step 114, the returns provider receives the package from the carrier. The returns provider scans the return label on the package and weighs the package. Any special shipping flags or indicia are entered at this  
15 time. In this manner, the returns provider receives multiple packages, which may be items originating from multiple merchants, throughout a daily course of business.

In a process known as "manifesting", the  
20 returns provider calculates the shipping charges due to the carrier and electronically manifests the carrier. Typically, this is done on a daily basis. In the example of this description, the returns provider pays the carrier, and is compensated by the merchant for carrier  
25 costs and other services.

The returns provider then sorts the packages by merchant, again using data printed on return label 20, and collects the packages associated with each merchant. The final destination code is encoded on the return  
30 label, and may also be printed in human readable form.

For large volume merchants, the destination code may be associated with a package chute and/or a docking door.

The returns provider may also provide "value added" services for the benefit of the merchant, such as  
5 notification of the return to merchant or notification to the customer of receipt of the package. For example, the returns provider may use the scanned return label information to notify the customer and/or the merchant that the package has been received.

10 In Step 116, after aggregating the packages for each merchant, the returns provider further ships them in accordance with whatever policies are specified for that merchant. For example, the returns provider may palletize shipments back to the merchant. The return  
15 label data is used to create a bill of lading, with data such as pallet counts, package counts, and shipment weight.

In Step 118, the package is handled according to the disposition policy of the merchant, such as by being  
20 returned to stock, sent to a re-seller, liquidator, or otherwise disposed.

A processing center 119 is used to collect data scanned from return labels, and to process the returns. The processing center 119 includes computer processing  
25 equipment, including computers, data storage, and networking equipment, appropriate for communication of data to and from returns centers, merchants, and customer, as appropriate. The computing equipment is programmed to fulfill the various data processing  
30 services described herein. The processing center 119 may also provide a web page or other network-accessible data

source, accessible by customers for obtaining information about returns and data for printing return labels. As explained below, the processing center 119 is further used to match data on the return label to merchant rules, which may specify routing of the package or other rules for handling the return.

Returns Label Provided to the Customer

FIGURE 2 illustrates an example of a return label 20, suitable for use with the merchandise return method of FIGURE 1. In the example of FIGURE 2, the carrier is the USPS. Return label 20 incorporates data appropriate for the merchandise return service offered by the USPS, as well as data used for additional services provided by the returns provider. As stated above, other or additional carriers having the equivalent of postage due capabilities could be used, in which case, return label 20 would be modified to comply with the requirements of those carriers.

The customer's address 21 is printed on the upper left corner of label 20. This address matches the original delivery address.

The visual flag 22 is a human readable code, that can be used for various purposes. In the example of this description, flag 22 is a destination code that indicates a final package destination. Examples of final destinations are a merchant's warehouse, a liquidator, or a warranty, recall or repair center. This destination code matches a destination code embedded in barcode 25. In other embodiments, flag 22 could correlate to any sort of delivery "rule". As another example, visual flag 22

could indicate a quality of service, such as whether the package is to expedited or held for some reason. Or flag 22, could indicate the contents of the package, such as whether it is "high value" for special handling. Flag 22  
5 permits the package to be manually sorted at the returns center for subsequent routing. In general, these examples are merchant-specific, in the sense that they represent data specific to the merchant and returns processing rules.

10       The merchandise return rectangle 23 is specific to the carrier and pertains to the relationship between the carrier and the returns provider. In the example of this description, it states the USPS permit information of the returns provider.

15       The delivery address 24 is, as explained above, the address of a delivery location that is geographically nearest the customer. This determination of this address is dependent on the customer's postal code, as specified during the transaction leading to the return (such as the  
20 purchase transaction). As stated above, the delivery address could be a carrier center, such as a USPS bulk mail center, where it is held for pickup by the returns provider.

Barcode 25 is a dynamically generated machine-  
25 readable code that is based on unique information about the specific transaction involving the item(s) being returned. An example of barcode data is described below, but in general, the barcode data provides data for information servers 119 so that various "value added"  
30 returns processing tasks may be performed, such as manifesting of shipping charges, notifications to the

customer and/or merchant, and final disposition of the returned item.

The barcode data permits the returns center to correlate the returned item back to the transaction with the customer. One type of correlation is an invoice  
5 number, as indicated by the example below.

Barcode 25 may comprise various alphanumeric or numeric only formats. Various other types of machine readable coding could be used as an alternative to bar-  
10 coding, such as other types of optical scan data or radio frequency identification (RFID) tagging. The coding may be printed or may be some other format, such as the electronic circuitry used in an RFID tag.

The "postage due" insignia 26, including the  
15 horizontal bars 26a, indicates to the customer and the carrier that shipping charges are to be paid by the recipient.

Barcode 25 is a "third party barcode" in the sense that need not be specified by the carrier, which in this  
20 case, is the USPS. Although not shown in FIGURE 2, return label 20 may have one or more additional barcodes, for example a barcode containing data for the carrier's use, such as for carrier tracking or return confirmation.

FIGURE 3 illustrates a data string that is an  
25 example of the contents of the barcode 25 of FIGURE 2. The example of FIGURE 3 has 24 positions, each with an alphanumeric character. The information in barcode 25 is "integrated" in the sense that it is contained in a single barcode or other machine readable string of data.

30 The barcode 25 contains multiple data points, and contains data that is "transaction specific", in the

sense that it identifies the transaction between the customer and the merchant or other party to whom the package is being delivered. The "transaction specific" data is dynamically generated in the sense that it is  
5 generated after the original order is made, and is specific to that transaction.

In general, the barcode data points are used to process the package for purposes other than moving it from one place to another. In contrast, "carrier  
10 specific" data elsewhere on the label 20 functions merely for shipping purposes.

Field 1 identifies the returns provider. Field 2 identifies the package destination.

Field 3 represents the shipping origin of the  
15 package (customer's postal code), which permits assessment of shipping charges from where the customer drops off the package (the return package origin) to the returns center (or a nearby BMC) where it is pulled from the carrier.

20 Field 4 identifies the merchant from whom the item was purchased. Or, as explained above, some party other than the merchant may be involved in the transaction leading to the return, such as a warranty or repair service.

25 Field 5, a selector field, may be used for various purposes, such as to identify the label type, or to identify a shipping category, such as Priority Mail or customer-paid.

Field 6 identifies the transaction involving the  
30 returned item in some manner. As explained above, often the merchant uses this field to correlate the return

label to the original order, such as by filling the field with the invoice number. This field could also be used for data such as a customer number, product SKU, or other data.

5        If desired, one or more of the above-described fields could be omitted and another field used to link to the same information at the returns center. For example, Field 3 (the customer's postal code) could be omitted and Field 6 used at the returns center to dynamically link to  
10        stored data that provides the customer's postal code. In this event, barcode 25 would equivalently be considered to contain "data representing at least the origin of the package and identification of the transaction".

         It should be understood that the barcode data in the  
15        example of FIGURE 3 is minimal and additional data could be easily included. Additional data points that may be included in the barcode 25 include data points falling into categories "transaction specific", "merchant specific", "customer specific", "product specific",  
20        "trading partner", or "disposition" data. "Transaction specific" data identifies the transaction, such as by invoice number in the case of a purchase transaction. The "merchant specific" data identifies the merchant or some characteristic of the merchant. The "customer  
25        specific" identifies the customer or some characteristic of the customer. "Product specific" data identifies the package contents, such as by SKU number. "Trading partner" data describes a trading partner of the returns center, such as a liquidator or other service provider.  
30        "Disposition" data describes a disposition rule or final destination of the returned item.

Often, the merchant directly provides the return label (or data for generating the return label) to the customer. To this end, the returns provider provides the label specifications to the merchant, as well as a  
5 delivery address data file. This data file is used to correlate each customer's postal code to the returns provider location that is closest to the customer. The data file is made available to the merchant via data network access, such as by the internet.

10 In the example of FIGURES 2 and 3, the data on the returns label 20 is pre-printed. In other embodiments, the customer might fill in at least some of this data. For example, label 20 could have a predetermined format, and the customer would be directed to fill in certain  
15 information such as the customer's address, the package invoice number, or a shipping destination. However, in general, regardless whether label 20 is entirely pre-printed or all or partly filled by the customer, it is deemed to have a predetermined format, and prior to being  
20 shipped by the customer, to contain certain customer data as discussed in connection with FIGURES 2 and 3.

The various data elements described above in connection with FIGURES 2 and 3 can be used to implement the various returns services described herein, and some  
25 of these concepts may be implemented independently of others. For example, by using data representing the origin of the package (such as the customer's postal code), the returns center can perform reverse manifesting. By using data representing the original  
30 shipment (such as the identity of the merchant, the invoice, or the item), the returns center can dynamically



route the package or notify the merchant or the customer about the status of the return.

Use of the Returns Label

5       FIGURE 4 illustrates a process of generating a return label, such as return label 20. In the example of FIGURE 4, the return label 20 is to be provided to the customer in the original shipment. In Step 41, the merchant enters the order information to an automated  
10   order processing system. In Step 42, the merchant determines whether the order is an exception item. In Step 43, the merchant receives BMC (bulk mail center) data, which as explained above, is used to determine the BMC closest to the customer. In other embodiments, where  
15   the carrier is not the USPS, the address of some other carrier station close to the customer is used. In Steps 44 and 45, the return label and invoice are printed. In Steps 46 and 47, the order is fulfilled and shipped to the customer, with the return label being enclosed with  
20   the order.

FIGURE 5 illustrates the use of the return label 20 by the customer. Steps 501 - 510 illustrates various alternative ways for the customer to obtain the label 20. In Step 501, the customer receives the label 20 with the  
25   invoice in the original shipment, as described above in connection with FIGURE 4. The customer may merely detach the label (Step 509).

In Step 502, the customer receives the label 20 by contacting customer service of the merchant, such as by  
30   phone call or email (Step 504). The label is then

generated (Step 506) and emailed to the customer (Step 508).

In Steps 503 and 505, the customer receives the label by accessing a website and requesting an image.

5 The label is generated and displayed (Steps 506 and 507) and the customer prints the label (Step 510).

In Step 520, the customer prepares the return by filling out a return form and applying the return label to the package. In Steps 521 and 522, the customer  
10 packages the return and drops it with the carrier specified by the merchant.

Steps 530 - 536 illustrate how data from the return label can be used to facilitate tracking requests. In Step 530, the package has been received at the returns  
15 center and scanned as described above in connection with FIGURE 1. The data is stored and accessible by a tracking process, which may be part of processing system 119.

In Step 531, the customer makes a tracking request  
20 through customer service of the merchant. In Step 533, the request is processed, and the results communicated to the customer. In Step 532, the customer makes a tracking request via the merchant's website. In Steps 533 and 534, the request is processed and the results are  
25 displayed.

FIGURE 6 illustrates an example of the use of return label 20 for issuing credit to the customer. FIGURE 6 is an expansion of one aspect of the returns center processing in Step 114 of FIGURE 1.

30 In Step 61, the package with the return label affixed is received at the returns center. It is assumed

that return label 20 has at least some means to correlate the package to the original order, such as an invoice number. In Step 62, the label is scanned and linked to the original order. In Step 63, the reason for the  
5 return is captured, such as by reading the return form. The reason for the return may be used to determine whether the customer is to bear shipping costs for the return, and hence the amount of credit to the customer. The return reason may be communicated to the merchant, in  
10 addition to other return information, using processing system 119. In Step 64, the credit due the customer is calculated. Step 64 may involve accessing stored business rules of the merchant. In Step 65, data for implementing credit to the customer is delivered to the  
15 appropriate processing center.

FIGURE 7 illustrates how the data on returns label 20 can be used to implement "dynamic routing". In Step 71, the package is received at a returns center. In Step 72, at the returns center, using processing system 119,  
20 data on barcode 25 is linked to the merchant's specifications for routing the package to its final destination. In Step 73, the package is routed in accordance with whatever specifications are current at that time. For example, the original shipment data may  
25 indicate that a package contains a seasonal item. At the end of the season, these packages may then be routed to an outlet destination rather than a re-stock destination. As another example, for a returns center that handles packages for more than one merchant, the original  
30 shipment information might merely identify the merchant. The returns center can then match the packages of that

merchant to the current rules for that merchant, such as  
by routing all packages to a particular destination.